

Notice of Allowability	Application N .	Applicant(s)	
	10/031,963	CHANG ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10-18-04.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ The drawings filed on 22 January 2002 and 10-18-04 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>010605</u>. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input checked="" type="checkbox"/> Other <u>See Continuation Sheet</u>. |
|---|---|

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Examiner's Amendment

1) An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

In claim 1:

line 13 after "width W" insert --of the gate--

line 14 after "height h1 of the" insert --expansion cavity in the--

In claim 2:

line 4 change "polymer" to --elastomer--

In claim 4:

line 2 change "with ram" to --on the fiber reinforced elastomer with the ram--

In claim 6:

line 2 delete --partially formed from--

line 6 change "the fiber reinforced elastomer" to --an elastomer and fibers--

line 8 after "mixing said elastomer" insert --and fibers--

line 9 before "elastomer" insert --fiber reinforced--

In the drawing sheet having figure 5 filed 10-18-04:

add the following identification label: "Replacement Sheet".

2) Authorization for this examiner's amendment was given in a telephone interview with Nancy Krawczyk on 1-6-05.

Reasons For Allowance

3) The following is an examiner's statement of reasons for allowance, which supplements applicant's arguments filed 10-18-04:

Chang et al discloses a thickness t_1 (gate height h_2) of 0.4 mm (page 6 lines 21-23, 28-31 and 0.25 mm (page 8, example 1). Chang et al discloses average fiber length of 0.1 - 1000 microns (0.0001 - 1 mm). Each of these gate heights of 0.4 mm and 0.25 mm fall within the average fiber length of 0.1 - 1000 microns (0.0001 - 1 mm). The gap height h_2 in Chang et al may therefore be *smaller than* the average length of the fibers.

Applicant correctly notes that Goettler discloses a feed rate of 5-10 feet / min, which is equivalent to 25.4 to 50.8 mm/sec. This feed rate of 25.4 to 50.8 mm/sec is clearly *outside* the claimed range of "100 to 1000 mm/sec linear speed at the gate".

The prior art of record fails to suggest modifying Chang et al such that "the gate (12) has a gap height h_2 larger than the average length of said fibers" (emphasis added) **and** "the viscosity of said elastomer as the elastomer enters the gate (12) is maintained at Mooney viscosity of 30 to 80" (emphasis added) **and** "the elastomer is processed at a speed of 100 to 1000 mm/sec linear speed at the gate (12) and 1 to 100 mm/sec in the expansion cavity (14)" (emphasis added).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

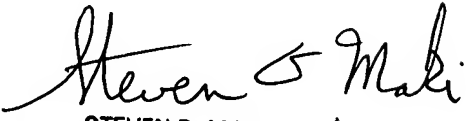
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4) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
January 6, 2005


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1-6-05